

**SCREENING SITE INVESTIGATION  
FOR THE  
JOHN T. LEWIS AND BROTHERS  
(a.k.a. UNITED METALS, a.k.a. NATIONAL LEAD)  
2607 EAST CUMBERLAND STREET  
PHILADELPHIA, PENNSYLVANIA  
ECKEL SITE NUMBER 57**

Prepared for

U.S. Environmental Protection Agency Region 3  
Hazardous Property Cleanup Division  
1650 Arch Street  
Philadelphia, PA 19103

Prepared by

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Remedial Action Contract No. 68-S7-3002  
Work Assignment No. 048-PAPA-03ZZ  
Project No. I4185.47502.0903

February 1, 2007

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## **1.0 INTRODUCTION**

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the John T. Lewis and Brothers Company (a.k.a. United Metals or National Lead) site is listed as located at 2607 East Cumberland Street, Philadelphia, Pennsylvania, 19125. Information obtained under the site aliases, United Metals and National Lead, indicate the site address to be 2514 E. Cumberland Street. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 57 (Ref. 1).

## **2.0 SITE LOCATION**

The former John T. Lewis and Brothers (a.k.a. United Metals or National Lead) facility was located in the 2600 block of East Cumberland Street, Philadelphia, Pennsylvania, 19125. The approximate geographic coordinates of the former John T. Lewis and Brothers facility are 39.977528° north latitude and 75.120399° west longitude on the Camden, New Jersey-Pennsylvania, Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is currently listed in EPA's CERCLIS database under EPA ID Number PAD981035660, as the E. Cumberland Street Site (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This

aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

### **3.0 SITE OBSERVATIONS**

On September 6, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the John T. Lewis and Brothers Company site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The former lead smelter property is currently occupied by the St. Anne's Senior Citizen center located at 2607 East Cumberland Street on the southeast corner of Almond and Cumberland Streets in Philadelphia, Pennsylvania. According to residents this building was once the John T. Lewis and Brothers office building which was built after the lead smelting building was torn down.
- The property is located in a primarily residential area with a newly constructed commercial area to the southwest of the subject property, consisting of a bank, a restaurant, and two pharmacies.
- Bordering the subject property to the east is the former National Lead Plant (also known as Anzon Lead). The former National Lead Plant was razed several years ago. The site was being developed at the time of the reconnaissance.
- A vacant lot, which was observed to be used for a local baseball field, was identified across the street from the subject property on the northeast corner of Almond and Firth Streets.

- Residential properties with small yards are located in the immediate vicinity of the subject property to the west along East Cumberland and Almond Streets.
- A fenced in garden area (formerly an EPA Brownfields project) is located across the street from the subject property on the northeast corner of East Cumberland and Almond Streets.

#### 4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former John T. Lewis and Brothers Company site include the nearby residential population, children attending schools, visitors to nearby parks and recreational areas, and any workers that may be employed at or in the nearby vicinity of the site. The residential population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

**Population Within a Four-mile Radius of the Site**

<b>Distance Ring (miles)</b>	<b>Population (number of persons)</b>
0.0 to 0.25	3,741
0.25 to 0.5	9,353
0.5 to 1.0	31,139
1.0 to 2.0	109,233
2.0 to 3.0	171,455
3.0 to 4.0	280,897

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 6, 2005.

No daycare centers were identified in the immediate vicinity of the site. Three schools were identified within one-half mile of the former lead smelter. Douglas School is located approximately one-quarter mile southeast of the site. St. Anne's Elementary School and Hackett Elementary School are located one-third mile north and northwest of the site, respectively. Aramingo Square is located approximately 1,000 feet northeast of the site.

## **5.0 FINDINGS AND RECOMMENDATIONS**

The site is located in a primarily residential area of Philadelphia, Pennsylvania. Exposed soils, were observed in the nearby vicinity of the property formerly used as a lead smelter. Therefore, to determine if there is a threat to potential targets from elevated levels of lead in soils, it is recommended that soil samples be collected from nearby residential yards, the adjacent garden, the vacant lot used as a baseball field and Aramingo Square and analyzed for lead levels.

## REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 6, 2005. On-Line Address: [quickfacts.census.gov/qfd/states/42.html](http://quickfacts.census.gov/qfd/states/42.html).



## **APPENDIX A**

### **Figures**





0 0.25 0.5  
Miles  
Scale in Miles

John T. Lewis & Bros.  
2607 East Cumberland Street  
Philadelphia, Pennsylvania  
Eckel Site No. 57



**Figure 1**  
Site Location Map





Source: Modified from USGS 7.5-Minute Series Topographic Quadrangles,  
Camden, New Jersey - Pennsylvania, 1995  
Philadelphia, Pennsylvania, 1967, Revised 1994








### Legend

-  Approximate Site Location
-  School
-  0.5-Mile Radius
-  Parks

0 500 1,000  
 Feet  
 Scale in Feet

John T. Lewis & Bros.  
 2607 East Cumberland Street  
 Philadelphia, Pennsylvania  
 Eckel Site No. 57

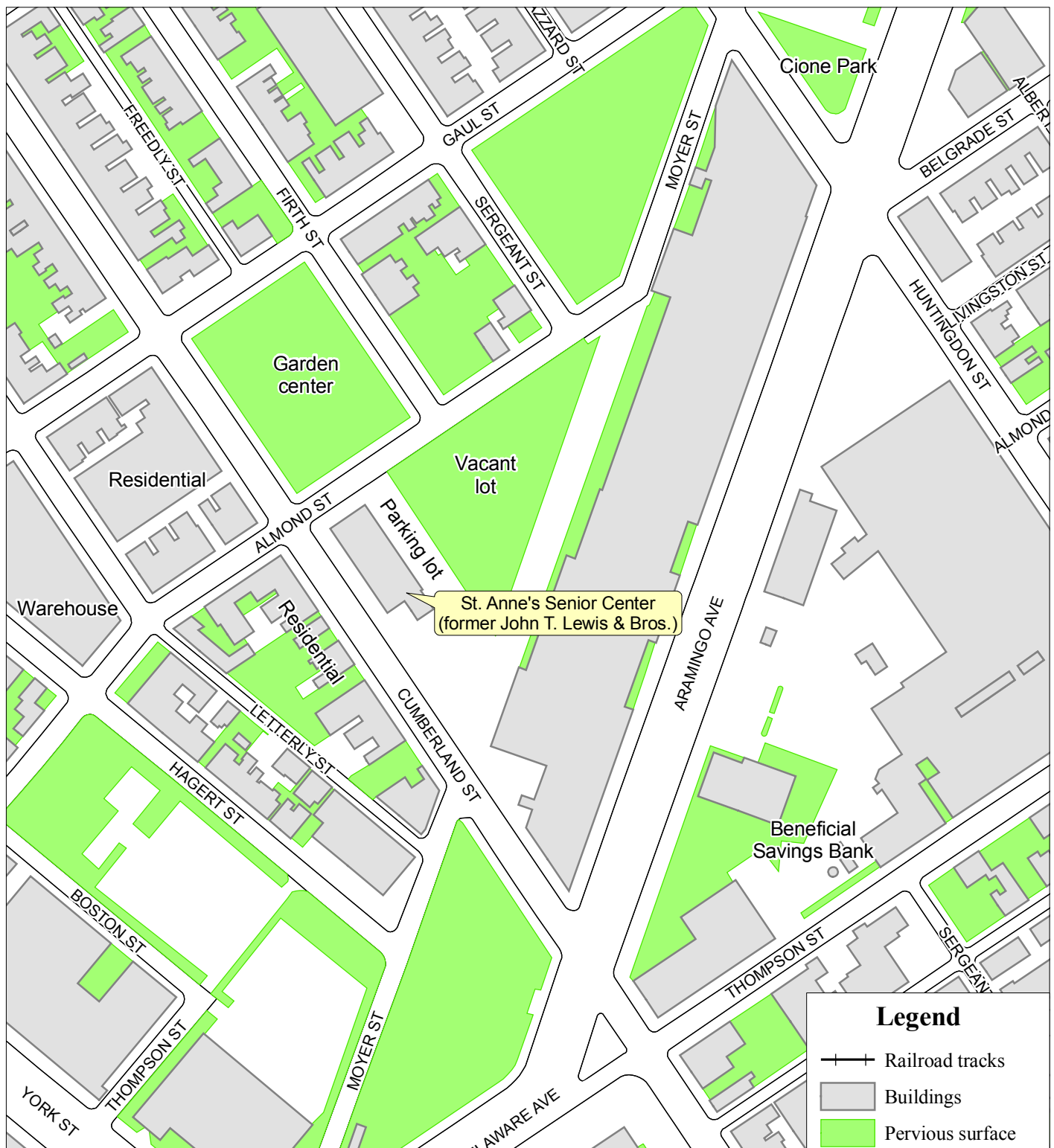


**Figure 2**  
 Aerial Photograph

Source: Modified from Digital Orthophoto (DOQQ) MrSID mosaic for  
 Camden Quadrangle (NAPP III, 1997-2001)  
 Philadelphia Quadrangle (NAPP III, 1997-2001)







John T. Lewis & Bros.  
2607 East Cumberland Street  
Philadelphia, Pennsylvania  
Eckel Site No. 57

**Figure 3**  
Site Layout Map

Source: Modified from Philadelphia City Planning Commission (PCPC) Department - GIS Division, 2006.



**APPENDIX B**  
**Photographic Documentation**



## *Photographic Documentation*

**Site Name:** John T. Lewis & Brothers – Eckel Number 57  
**Location:** 2607 East Cumberland Street, Philadelphia,  
Pennsylvania

**Prepared by:** Tetra Tech EM Inc.  
**Photographer:** [REDACTED]

### **Photograph No. 1**

**Photograph Date:**  
September 6, 2005

**Description:** View of the former  
lead smelter now occupied by St.  
Anne's Senior Citizens.



### **Photograph No. 2**

**Photograph Date:**  
September 6, 2005

**Description:** View of parking lot  
of the senior center on the  
northeast east side of the building.







## *Photographic Documentation*

**Site Name:** John T. Lewis & Brothers – Eckel Number 57

**Location:** 2607 East Cumberland Street, Philadelphia, Pennsylvania

**Prepared by:** Tetra Tech EM Inc.

**Photographer:** [REDACTED]

### **Photograph No. 3**

**Photograph Date:**  
September 6, 2005

**Description:** View of garden area on northeast corner of Almond and Cumberland Streets.



### **Photograph No. 4**

**Photograph Date:**  
September 6, 2005

**Description:** View of Almond Street southwest from the former lead smelter showing residential homes.

